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Remarks

Claims 1-7, 14-16, 19, and 22-26 remain pending in the application. Claims 8-13, 17, 18, 20, and 21 are canceled. Claim 2 is amended. Claims 22-26 are added.

Claims Rejection - 35 U.S.C. §102 (Baldwin)

The Office Action rejects claims 1, 14, and 19 under 35 U.S.C §102(b) as being anticipated by Baldwin, Method and Apparatus for Performing Cardio-Pulmonary Resuscitation with Active re-shaping of the Chest, US Patent 5,743,864 (Apr. 28, 1998). The Office Action asserts Baldwin discloses in figure 4-6 a band attached to a driver mechanism for contracting the band about the chest of the patient; a fluid filled cushion is disposed between the chest of the patient and the band; and a control system to control the rate and pressure of the system for the purposes of CPR. The Office Action is failing again to fully consider the claim limitations of the Applicant's claimed invention. Therefore, withdrawal of this rejection is respectfully requested.

The Office Action asserts, *inter alia*, that Baldwin discloses a band attached to a driver mechanism for contracting the band about the chest of the patient. Baldwin, however, does not disclose a driver mechanism for contracting the band... The mechanism disclosed in Baldwin is a piston assembly. (col. 3, lines 23-49 and Figures 4-6). There is no driver mechanism found in Baldwin for contracting the collar nor is there a suggestion to use one. The collar found in Baldwin is merely manufactured from a non-extensible material that surrounds and conforms to the patient of the chest. (col. 3, lines 7-9). There is no contraction of the collar in Baldwin by a driver mechanism. Contraction may be defined as to shorten. The length of the collar found in Baldwin is not shortened during compressions. The

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collar in Baldwin maintains its length during compressions. It is described throughout the specification as being non-extensible. Non-extensible may be defined as *not capable of being stretched or opened out*. The collar in Baldwin functions differently from the band in the Applicant's claimed invention. The length of the Applicant's band is cyclically contracted and extended during CPR.

The claim limitations in the Applicant's claimed invention make the Applicant's claimed invention patentably distinct from Baldwin. Elements claimed by the Applicant are simply not found in Baldwin. As disclosed in the Applicant's specification and further claimed by the Applicant in claims 1, 14 and 19, the Applicant's device performs CPR, in part, by the driver mechanism **contracting the band at a rate sufficient to perform cardiopulmonary resuscitation**. The collar in Baldwin is not contracted let alone contracted by a mechanism at a rate sufficient to perform cardiopulmonary resuscitation. A piston is used in Baldwin to perform chest compressions on the sternum during CPR. The purpose of the collar in Baldwin is to merely restrain the circumference of the thoracic cavity of the patient during chest compressions by the piston. (col. 3, lines 9-22). The collar in Baldwin does not compress the sternum of a patient, the piston does. Further, the applicant claims a controller programmed to control the driver mechanism to contract the band to a tightness sufficient to perform cardiopulmonary resuscitation. The controller found in Baldwin simply controls the stroke of the piston (col. 5, lines 26-30) and not the contraction of the band. Because Baldwin fails to disclose at least one limitation found in the Applicant's claimed invention, the Applicant's claims are not anticipated by Baldwin. Therefore, withdrawal of this rejection is respectfully requested.

**Claims Rejection - 35 U.S.C. § 103 (Chang & Whitney)**

The Office Action rejects claims 2-7, 15 and 16 as being obvious over Chang, Method and Apparatus for Applying High

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Frequency Extrathoracic Induced Breathing, Canadian Patent 1,225,889 (Aug. 25, 1987) in view of Whitney, Medical Apparatus, US Patent 4,453,538 (Jun. 12, 1984). The Office Action asserts that Whitney teaches adding a cushion to the air bladder next to the patient for comfort and it would have been obvious to one of ordinary skill in the art to Modify Chang to include a cushion between the band and the patient as taught by Whitney. Claim 2 is amended to better point out and claim what the Applicant believes to be his invention. Claims 3-7, 15 and 16 depend from claim 2. Further, the Office Action is again failing to fully consider the claim limitations of the Applicant's claimed invention. The combination of Chang and Whitney would not result in the Applicant's claimed invention. Further, Whitney teaches away from the Applicant's claimed invention. Therefore, withdrawal of this rejection is respectfully requested.

The Applicant's claimed invention is not disclosed in the combination of Chang and Whitney and the Office Action is failing to fully consider the limitations of the Applicant's claims. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Neither the device taught or disclosed in Chang nor the device taught or disclosed in Whitney discloses or claims a system to perform Cardiopulmonary Resuscitation. Cardiopulmonary resuscitation is a procedure used on a patient whose heart has stopped in an effort to temporarily restore blood flow to the

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heart and brain. The Applicant specifically claims in claim 2 "the controller is programmed to control the driver mechanism to inflate the fluid-receiving cells at a rate **sufficient to perform cardiopulmonary resuscitation...**" Claim 2 also claims "the controller is programmed to control the driver mechanism to inflate the fluid-receiving cells to a pressure sufficient to contract the band to a tightness **sufficient to perform cardiopulmonary resuscitation.**" This claim limitation simply should not be ignored. The system in Chang is designed to assist breathing on a living patient. (page 3, lines 6-16). Chang assists the normal breathing patterns of a patient having various respiratory diseases. (page 1, lines 29-31). Chang does not disclose, enable, suggest or claim performing cardiopulmonary resuscitation as claimed by the Applicant. Simply put, the Applicant's claim elements are not found in Chang.

The Whitney device is directed towards the treatment of deep venous thrombosis in limbs. Again, there is nothing disclosed, taught, enabled, or claimed in Whitney directed towards a controller programmed to control the driver mechanism to inflate the fluid-receiving cells at a rate **sufficient to perform cardiopulmonary resuscitation or contract the band to a tightness sufficient to perform cardiopulmonary resuscitation.** There is nothing found in Whitney or Chang to suggest their combination could successfully perform CPR. There is no mention of CPR in either specification and no reasonable expectation of success this combination from non-analogous art could perform CPR. The same claim limitations not found in Chang are also not found in Whitney. In addition to failing to disclose the Applicant's claimed invention, Chang also teaches away from the Applicant's invention. Whitney teaches a sequential application of pressure alternating with one minute periods of exhaust and ventilation beneath the bladdered. Whitney's overall cycle time is one to one and a half minutes. (col. 3, lines 66-68). This cycle time is too slow for CPR. Further, Whitney states the application of pressure

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applied equally and simultaneously is bad. (col. 1, lines 31-33). Specifically, Whitney states devices which apply a uniform overall pressure do not move the blood in a specific direction. (col. 1, lines 31-33). The Applicant's invention applies pressure in a substantially uniform method over the patient's chest.

The Applicant's claim 2 is amended to further point out and claim what the applicant believes to be his invention. Claim 2 claims, *inter alia*, "...a cushion adapted to translate to the patient's chest an amount of force sufficient to perform cardiopulmonary resuscitation disposed between the chest of the patient and the band, with at least a portion of said cushion disposed over the sternum of the patient...." Neither Chang nor Whitney alone or in combination disclose a cushion disposed over the patient's sternum and adapted to translate an amount of force sufficient to perform CPR. There is no cushion found in Chang or Whitney disposed over the sternum of the patient. Further, the cushion found in Whitney is not adapted to translate force sufficient to perform CPR. As the Office Action recognizes on page 2, the cushion in Whitney provides comfort. The cushion in Whitney is not adapted to translate force an amount of force sufficient to perform CPR. The cushion found in Whitney is for a different purpose requiring different properties than those required by the Applicant. Whitney specifically states "a flexible pad for enwrappment about a mammalian limb." (col 3, lines 34-45) The Applicant's claim limitations distinguish its cushion requirements from that of Whitney. A combination device of Chang and Whitney would simply be unable to perform CPR since there is no cushion found in either reference placed over the sternum of the patient and any cushion disclosed could not translate an adequate amount of force sufficient to perform CPR. For at lease the reasons stated above, withdrawal of the rejection is respectfully requested.

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Claims Rejection - 35 U.S.C. § 103 (Chang, Whitney & Cantrell)

The Office Action rejects claims 8-13, 17, 18, 20, and 21 as being obvious over Chang in view of Whitney and in further view of Cantrell, Chest Mounted Cardio Pulmonary Resuscitation Device and System, US Patent 6,174,295 (Jan. 16, 2001). The Office Action asserts it would have been obvious to modify Chang to include a cushion between the band and the patient as taught by Whitney to provide comfort to the user and to provide a computer as taught by Cantrell. Claims 8-13, 17, 18, 20, and 21 are canceled in an effort to expedite prosecution making this rejection moot, but reserves the right to submit them in a continuation application with appropriate arguments. Therefore, withdrawal of this rejection is respectfully requested.

Conclusion

This response has addressed all of the Examiner's grounds for rejection. The rejections based on prior art have been traversed. Reconsideration of the rejections and allowance of the claims is requested.

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By:

  
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